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PAPER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/910,960
Filing Date: July 24, 2001
Appellant(s): OLOFSSON ET AL.

Thomas P. Pavelko
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/28/2008 appealing from the Office action mailed
4/25/2006

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

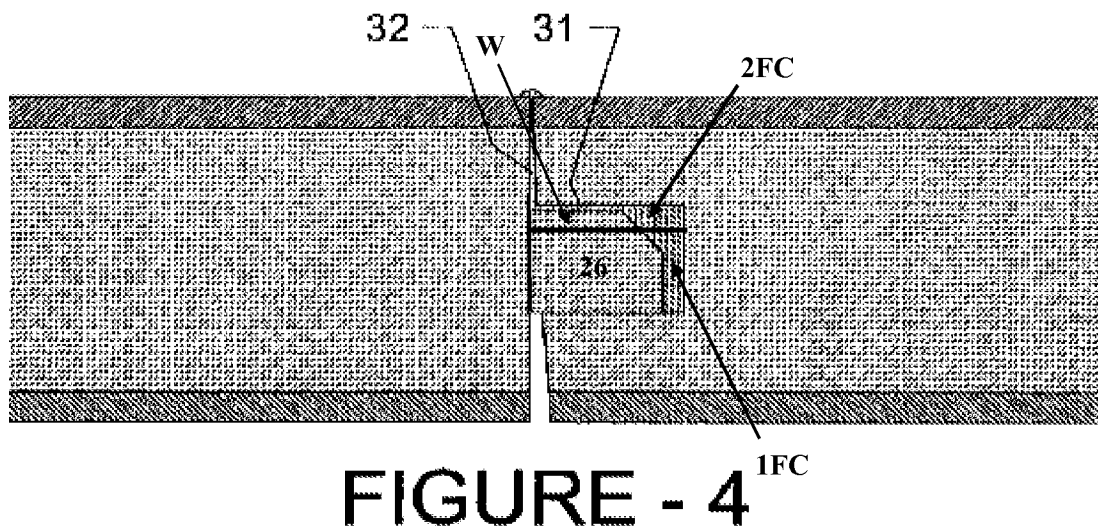
| | | |
|------------|------------|--------|
| 5,618,602 | Nelson | 4-1997 |
| WO96/27721 | Martensson | 8-2000 |

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

Claims 3-7, 9-15, 18-23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson (US 5,618,602) (see marked-up figure below) in view of Martensson (WO96/27721).



Claim 7 (Independent). Nelson discloses (figs.1 and 4) a guiding means at a joint between adjacent boards (10), said boards comprising an upper surface (12), and a core (13), and bounded by edges, at least one of said edges comprising a groove (16) or a tenon (26), said tenon comprising at least one guiding wedge (W which is comprised of portions of 27 and 30) wherein the tenon has an angled distal surface (30) and at least one of said guiding wedges is positioned

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between said angled distal surface and the core, wherein a fitting clearance (**clearance between 26 and 16**) between the tenon of a first (**left 10**) of said boards and a groove (**16**) of the adjacent board (**right 10**) includes a first fitting clearance (**1FC**), the first fitting clearance being bounded by a distal end (**29**) of the tenon and a proximal part (**19**) of the groove, and a second, guiding, fitting clearance (**2FC**) which second, guiding, fitting clearance being bounded by, on at least one side, at least one of said plurality of guiding wedges, whereby the first fitting clearance comprises the main part of the fit and the second, guiding, fitting, clearance comprises a smaller part of the fit, and said at least one of said guiding wedges comprises a distal angled surface (portion of **30 comprised by W**) and a section (**27**) extending from said distal angled surface of said guiding wedge to said core (see figures 1-8, *especially* figure 1 and annotated figure 4 above); wherein glue (**20**) is applied during a manufacturing process of the boards (i.e., the manufacturing process shown in figures 1-4). Furthermore:

- Nelson discloses that the at least one guiding wedge is located on top of the tenon and is arranged (in that the wedge extends both from top to bottom of W and from left to right of W) perpendicular to the extension of the joint (joint is taken to extend along the length of where panels [10] meet, i.e., along the third dimension of the panels not shown in the two dimensional figures). However, Nelson fails to disclose that the at least one guiding wedge (which is located on top of the tenon) comprises a plurality of guiding wedges.
- Martensson, teaches that a tenon should have two guiding wedges (top 9, bottom 9) on both the top and bottom of the tenon; and arranged (in that the wedge 9 extends both from top to bottom of 9; and also extends from left to right of 9) perpendicular to

- the extension of a joint (joint is taken to extend along the third dimension shown in figure 2, i.e., not top to bottom, and not left to right, but rather along the mating extension of panels into the figures) in order to strengthen the joint connection (p.2, last paragraph; p.4, 3rd-6th paragraphs).
- Duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). It has generally been recognized that the rearranging of parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70. Furthermore, the appellant has failed to demonstrate criticality by any showing of unexpected result derived from a plurality of wedges over a single wedge. Wherein a specific limitation has no criticality, case law can be relied upon as the rationale in an obviousness rejection. See MPEP 2144.04. Note that criticality requires unexpected results not merely expected positive results. “[T]he results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise patents might stifle, rather than promote, the progress of useful arts. See U.S. Const., Art. I, section 8, cl.8.” In re KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007).
 - Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the Nelson "at least one wedge" to comprise a plurality of wedges, located on top and bottom of the tenon as taught by Martensson, for the purpose of increasing the strength of the joint; and further since the limitation has no criticality and has thus been established by the case law cited above to be an obvious design consideration within the skill of the art.

- Note that, in a product claim, the specific method of forming is not germane to the issue of patentability of the final product itself. Therefore, the limitation “during the manufacturing process of the boards” (last line of claim 7) has been given only limited patentable weight. See MPEP § 2113.

Claims 4-6 (each dependant from claim 7). Nelson shows (see figures 5-8) and discloses (column 5 lines 27-40) dimensions and tolerances for the tenon **26** and groove **16**. The resulting fit, given the tolerance ranges, includes the recited ranges. Even if the claimed ranges were not disclosed by Nelson, the examiner notes the following:

- It has generally been recognized that the optimization of proportions in a prior art device is a design consideration within the skill of the art. In re Reese, 290 F.2d 839, 129 USPQ 402 (CCPA 1961). Furthermore, the appellant has failed to demonstrate criticality by any showing of unexpected result derived from the claimed ranges over any other range. Wherein a specific limitation has no criticality, case law can be relied upon as the sole rationale in an obviousness rejection. See MPEP 2144.04. Note that criticality requires unexpected results not merely expected positive results. “[T]he results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise patents might stifle, rather than promote, the progress of useful arts. See U.S. Const., Art. I, section 8, cl.8.” In re KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007).
- Therefore, even if the claimed ranges were not disclosed by Nelson, it would have been obvious to one with ordinary skill in the art at the time the invention was made

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to optimize the Nelson ranges as such, since the limitation has no criticality and has thus been established by the case law cited above to be an obvious design consideration within the skill of the art.

Claim 9 (dependant from claim 7) and claims 12-15 (dependant from claims 4-7).

Nelson, as applied above, further includes the core **13** of the boards is constituted by particle board and that at least the upper side of the board is constituted by a decorative thermosetting laminate **11** (see figure 1 and column 3 lines 26-36).

Claim 18 (dependant from claim 7). Nelson further shows that said guiding wedge (W) consists of a distal angled surface (portion of 30 on W) and a section (**27**) extending from said distal angled section (30) to said core **13** (see figure 1). Note that "said distal angled section" (lines 2-3 of claim 18) lacks proper antecedent basis and is assumed to refer to the previously recited "distal angled surface".

Claim 19 (Independent). Nelson discloses (figs.1 and 4) a first board (**right 10**) comprising an upper surface (**12**) and a core (**13**), and bounded by edges, at least one of the edges comprising a groove (**16**); in combination with a second board (**left 10**) comprising an upper surface (**12**) and a core (**13**), and bounded by edges, at least one of the edges comprising a tenon (**26**); the tenon of the second board comprising at least one guiding wedge (W which is bounded by 27 and 30), the guiding wedge comprising a distal angled surface (**30**) and a section (**27**) extending from the distal angled section (note that "the distal angled section" lacks proper antecedent basis and thus is assumed to refer to "the distal angled surface") to the core (see figures 1-8, especially figures 1 and 4); wherein glue (**20**) is applied during manufacture of the boards (i.e., the manufacturing process shown in figures 2-4). Furthermore:

- Nelson discloses that the at least one guiding wedge is located on top of the tenon and is arranged (in that the wedge extends both from top to bottom of W and from left to right of W) perpendicular to the extension of the joint (joint is taken to extend along the length of where panels [10] meet, i.e., along the third dimension of the panels not shown in the two dimensional figures). However, Nelson fails to disclose that the at least one guiding wedge (which is located on top of the tenon) comprises a plurality of guiding wedges.
- Martensson, teaches that a tenon should have two guiding wedges (top 9, bottom 9) on both the top and bottom of the tenon; and arranged (in that the wedge 9 extends both from top to bottom of 9; and also extends from left to right of 9) perpendicular to the extension of a joint (joint is taken to extend along the third dimension shown in figure 2, i.e., not top to bottom, and not left to right, but rather along the mating extension of panels into the figures) in order to strengthen the joint connection (p.2, last paragraph; p.4, 3rd-6th paragraphs).
- Duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). It has generally been recognized that the rearranging of parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70. Furthermore, the appellant has failed to demonstrate criticality by any showing of unexpected result derived from a plurality of wedges over a single wedge. Wherein a specific limitation has no criticality, case law can be relied upon as the rationale in an obviousness rejection. See MPEP 2144.04. Note that criticality requires unexpected results not merely

expected positive results. “[T]he results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise patents might stifle, rather than promote, the progress of useful arts. See U.S. Const., Art. I, section 8, cl.8.” In re KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007).

- Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the Nelson "at least one wedge" to comprise a plurality of wedges, located on top and bottom of the tenon as taught by Martensson, for the purpose of increasing the strength of the joint; and further since the limitation has no criticality and has thus been established by the case law cited above to be an obvious design consideration within the skill of the art.
- Note that, in a product claim, the specific method of forming is not germane to the issue of patentability of the final product itself. Therefore, the limitation “during the manufacture of the boards” (last line of claim 19) has been given only limited patentable weight. See MPEP § 2113.

Claim 20 (dependant from claim 19). Nelson further shows the combination of the first board and the second board defines at least one fitting clearance (see figures 1-4).

Claim 21 (dependant from claim 20). Nelson further shows and discloses glue **(20)** disposed inside the at least one fitting clearance (see figures 2-4).

Claim 22 (dependant from claim 19). Nelson further shows and discloses that the glue **(20)** is disposed between the groove **(16)** of the first board and the tenon **(26)** of the second board (see figures 1-4).

Claim 23 (Independent). Nelson shows and discloses a process for forming a joint between adjacent boards (left 10, right 10), said boards comprising an upper surface (12), and a core (13), and bounded by edges, at least one of said edges comprising a groove (16) or a tenon (26) intended to be joined by means of glue (20) applied during manufacture of said boards (i.e., process of manufacture shown in figures 1-4), wherein a fitting clearance between the tenon and the groove includes a first fitting clearance, the first fitting clearance (1FC) being bounded by a distal end (29) of the tenon and a proximal part (19) of the groove, and a second guiding fitting clearance (2FC) which second guiding fitting clearance being bounded by, on at least one side, a guiding wedge (W bounded by 27 and 30), whereby the first fitting clearance comprises the main part of the fit and the second, guiding, fitting, clearance comprises a smaller part of the fit, and said guiding wedge comprises a distal angled surface (30) and a section (27) extending from said distal angled section (note "said distal angled section" lacks proper antecedent basis and is thus assumed to refer to the "distal angled surface") to said core (see figures 1-8, especially figures 1 and 4), said process comprising assembling the adjacent boards to form said joint (see claim 11 and figures 1-4). Furthermore:

- Nelson discloses that the at least one guiding wedge is located on top of the tenon and is arranged (in that the wedge extends both from top to bottom of W and from left to right of W) perpendicular to the extension of the joint (joint is taken to extend along the length of where panels [10] meet, i.e., along the third dimension of the panels not shown in the two dimensional figures). However, Nelson fails to disclose that the at least one guiding wedge (which is located on top of the tenon) comprises a plurality of guiding wedges.

- Martensson, teaches that a tenon should have two guiding wedges (top 9, bottom 9) on both the top and bottom of the tenon; and arranged (in that the wedge 9 extends both from top to bottom of 9; and also extends from left to right of 9) perpendicular to the extension of a joint (joint is taken to extend along the third dimension shown in figure 2, i.e., not top to bottom, and not left to right, but rather along the mating extension of panels into the figures) in order to strengthen the joint connection (p.2, last paragraph; p.4, 3rd-6th paragraphs).
- Duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). It has generally been recognized that the rearranging of parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70. Furthermore, the appellant has failed to demonstrate criticality by any showing of unexpected result derived from a plurality of wedges over a single wedge. Wherein a specific limitation has no criticality, case law can be relied upon as the rationale in an obviousness rejection. See MPEP 2144.04. Note that criticality requires unexpected results not merely expected positive results. “[T]he results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise patents might stifle, rather than promote, the progress of useful arts. See U.S. Const., Art. I, section 8, cl.8.” In re KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007).
- Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the Nelson "at least one wedge" to comprise a plurality of wedges, one located on the top and one located on the bottom of the tenon

as taught by Martensson, for the purpose of increasing the strength of the joint; and further since the limitation has no criticality and has thus been established by the case law cited above to be an obvious design consideration within the skill of the art.

- Note that, in a product claim, the specific method of forming is not germane to the issue of patentability of the final product itself. Therefore, the limitation “during the manufacture of said boards” (last lines 3-4 of claim 23) has been given only limited patentable weight. See MPEP § 2113.

Claim 3 (dependant from claim 23). Nelson further shows and discloses the glue **(20)** is activated before joining the tenon **(26)** with the groove **(16)** (see figures 2-4)

Claim 10 (dependant from claim 23). Nelson, as applied above, further includes the core **(13)** of the boards is constituted by particle board and that at least the upper side of the board is constituted by a decorative thermosetting laminate **(11)** (see figure 1 and column 3 lines 26-36).

Claim 11 (dependant from claim 3). Nelson, as applied above, further includes the core **(13)** of the boards is constituted by particle board and that at least the upper side of the board is constituted by a decorative thermosetting laminate **(11)** (see figure 1 and column 3 lines 26-36).

Claim 25 (dependant from claim 23). Nelson further shows applying the glue **(20)** to said at least one edge **(19)**.

(10) Response to Argument

The appellant argues that the prior art does not disclose guiding wedges. This is not persuasive as follows:

- The term "guiding" is reasonably taken to mean "steady or directing something". The term "wedge" is reasonably taken to mean "something that tapers". Accordingly, a "guiding wedge" would reasonably be "something tapered that can be used to steady or direct something".
- Element (W, see marked up figure above) of Nelson is a guiding wedge in that it has a tapered surface (30) that can be used to steady or direct element (25) as it is inserted into element (16).
- Element (9) of Martensson is a guiding wedge in that it has a tapered surface (tapered surfaces of 9 facing left as seen in fig.2) that can be used to steady or direct element (12) as it is inserted into (13).
- Lastly the appellant is reminded that where there is physical identity between the subject matter of the claim and the prior art, the label (guiding wedge) given to the claimed subject matter does not distinguish the invention over the prior art. In re Pearson, 494 F. 2d 1399, 1403, 181 USPQ 641, 644 (CCPA 1974); In re Lemin, 326 F. 2d 437, 140 USPQ 273 (CCPA 1964).

The appellant argues that the Martensson prior art does not show “a section extending from said distal angled section to said core”. This is not persuasive as follows:

- It is not Martensson but rather Nelson that is relied upon to disclose this limitation. Martensson is only relied upon to teach that two guiding wedges are desirable over a single guiding wedge for the purpose of increasing strength, as is detailed in the prior art rejections above. In other words, the fact that the Martensson guiding wedge is not shaped identically to appellant’s invention or that of Nelson is irrelevant since Martensson is not relied upon to teach shape only plurality.
- The limitation “said distal angled section” (line 8 of claim 19; and line 10 of claim 23) lacks proper antecedent basis and thus must be interpreted to refer to the “distal angled surface” in order to make any sense of the claims. Note that claim 7 does not have this problem.
- The Nelson wedge (W, see marked-up figure above) has a section (27) that extends from said distal angled surface/section (30) to a core (13), thereby meeting this limitation of the claims.

The appellant argues that element (W) of Nelson and element (9) of Martensson (which are taken by the examiner to be guiding wedges) are arranged parallel to rather than perpendicular to the joint between the boards. This is not persuasive as follows:

- The limitations “the extension of the joint” (lines 13-14 of claim 7; line 11 of claim 23) and “the extension” (line 9 of claim 19), lack any proper antecedent basis in the claims. Accordingly, the scope of these limitations must include any and all

directions of extension for the joint at any portion of the joint. Note that the joint of appellant's own invention includes numerous joint surfaces that extend in a first direction (left to right), second direction (top to bottom) and third direction (perpendicular to both the first and second directions). Accordingly it is reasonable to interpret the prior art as broad. The appellant cannot limit the scope of what is actually recited in the claims with mere argument. If the appellant truly intends to limit the scope of an extension of the joint to be in any specific direction, then such directional limitations must be recited in the claims. Furthermore, appellant has failed to identify precisely which structure of appellant's drawings correspond to the "joint" by reference character much less any specific direction of extension.

- The appellant's claims similarly fail to specifically define any specific direction of extension for the guiding wedge (e.g., from base to tip?, from side to side?, from back to front?). Accordingly, the prior art wedge extension must be interpreted equally as broad. In other words, side to side extension, top to bottom extension, and back to front extension all fall within the scope of "extension".
- Thus the position taken by the examiner (which is better detailed in the prior art rejections above) that the side to side extension, and/or top to bottom extension, of the guiding wedge is perpendicular to the back to front extension of the joint; is fair and reasonable.

The appellant argues that the prior art fails to disclose that the glue is applied during manufacture of said boards stating that " 'preglue' as known in the art, is quite distinct from 'fresh glue' ". This is not persuasive as follows:

- Neither of the phrases “preglue” nor “fresh glue” are recited in the claims.
- Nelson discloses that glue **(20)** is applied during manufacture of said boards (i.e., process of manufacture shown in figures 1-4) thereby meeting this limitation of the claims.
- The claims do not specifically define when “manufacture of said boards” begins or ends such that the gluing of the prior art boards is fairly taken to be a part of the manufacture and/or assembly of the boards within the broadest reasonable interpretation of the terms actually recited in the claims.
- Further regarding product claims 7 and 19, the specific method of forming is not germane to the issue of patentability of the final product itself. Therefore, the limitation “during the manufacture of said boards” has been given only limited patentable weight. See MPEP § 2113. Appellant has failed to detail how the final product of the prior art is structurally any different from that of the appellant with regard to glue as claimed.
- Further regarding method claim 23, the limitation “**intended** to be joined by means of glue applied during manufacture of said boards” (emphasis added) is a functional intended use limitation, such that the prior art meets this limitation by merely being capable of such usage.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Victor MacArthur/

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Conferees:

Meredith C. Petravick /mcp/

Daniel P. Stodola /dps/